GOAL 5: Compliance and Environmental Stewardship

Improve environmental performance through compliance with environmental requirements, preventing pollution, and promoting environmental stewardship. Protect human health and the environment by encouraging innovation and providing incentives for governments, businesses, and the public that promote environmental stewardship.

Under Goal 5, EPA continues to improve national environmental performance by ensuring compliance with environmental law and promoting environmental stewardship to conserve resources, prevent pollution, and reduce waste. The Agency uses a wide spectrum of regulatory and nonregulatory strategies, including compliance assistance and incentives, monitoring and data analysis, pollution prevention, and civil and criminal enforcement. EPA also conducts research to identify innovative approaches to environmental protection and encourages states, tribes, and regulated entities to develop new approaches, ideas, and techniques.

EPA's compliance programs work to ensure that regulated entities understand and comply with environmental law requirements. The Agency helps business—small businesses in particular—achieve and maintain compliance[1] and provides incentives[2] for facilities to conduct voluntary audits, correct problems, and return to compliance. EPA also uses enforcement actions[3] to correct and deter violations. In settling these civil cases, the Agency often negotiates supplemental environmental projects[4] that improve health and the environment in affected communities.

Civil enforcement actions completed in FY 2004 will reduce, properly treat, or eliminate an estimated 1 billion pounds of pollutants from release into the environment. In addition, 25.3 million pounds of pollutants will be reduced as a result of FY 2004 criminal enforcement actions.[5] Enforcement actions will also require companies to invest $4.8 billion in pollution control and improve environmental management practices at facilities. In FY 2004, 969 facilities voluntarily disclosed violations and corrected problems to achieve compliance.[6] Ninety percent of the regulated community responding to compliance assistance center surveys indicated an improved understanding of environmental regulation, and 72 percent improved environmental management practices as a result of the assistance. Forty-eight percent of survey respondents reported that they reduced, treated, or eliminated pollution as a result of the assistance.[7]

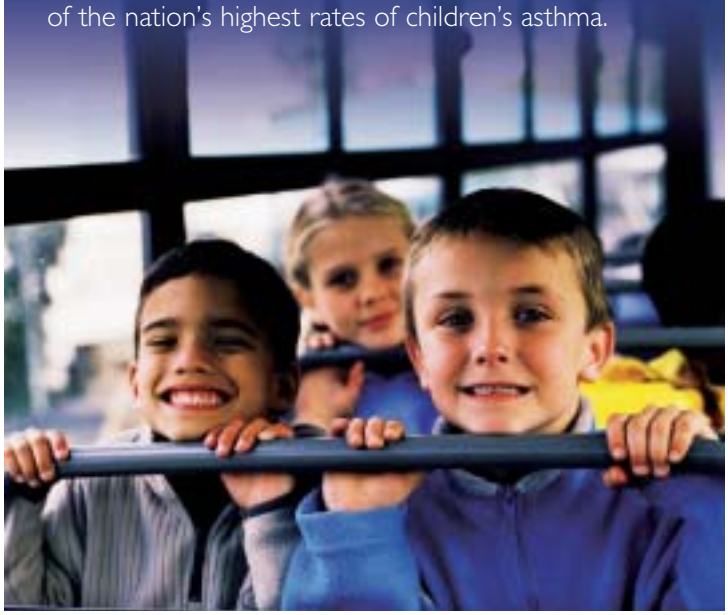
Enforcement actions reduce an estimated 1 billion pounds of pollution

Strong environmental stewardship protects the environment and conserves natural resources

EPA works directly with the regulated community to recognize and encourage outstanding environmental leadership and performance through innovative programs. The National Environmental Performance Track Program is building a culture of corporate environmental responsibility and superior performance by recognizing and rewarding high-performing environmental leaders who go well beyond complying with environmental law. During FY 2004, high-achieving companies used Performance Track's performance goals and measures to demonstrate significant, tangible benefits for the environment. Led by EPA and 23 states, the 344 member facilities have cumulatively conserved 3.1 trillion British Thermal Units of energy and 775 million gallons of water. Since FY 2000, Performance Track members have reduced their use of hazardous materials by nearly 18,000 tons and cut generation of solid waste by more than 176,000 tons. Members also have preserved or restored 4,485 acres of habitat. During 2004, Performance Track demonstrated its capability as an engine for driving environmental change in business systems, resulting in dramatic performance improvements that would not have been realized through regulatory approaches.[8]

Supplemental Environmental Projects—Benefiting Boston Communities:

Integrating pollution prevention into enforcement actions can help to promote environmental stewardship. For example, recognizing that many scientific studies have linked breathing particulate matter with a series of significant health problems, including aggravated asthma,[10] EPA's Region 1 negotiated settlements against the Mystic Station power plant and the Massachusetts Bay Transit Authority that included supplemental environmental projects to address this air issue in the local community. As a result of the supplemental projects, the City of Boston's school bus fleet and the commuter trains that pass through Boston were modified to burn low-sulfur rather than high-sulfur diesel fuel, reducing emissions of particulate matter.[11] These projects benefit environmentally disadvantaged Boston communities which have some of the nation's highest rates of children's asthma.



Performance Track

Through Performance Track, the Baxter Caribe facility in Puerto Rico has shown that environmental stewardship is a win for the environment and a win for the company. Baxter Caribe aggressively reduced its use of energy and its solid and hazardous wastes. Largely by reducing the use of acetone, Baxter cut its hazardous waste generation by 195,000 pounds. All this was accomplished while plant production increased 70 percent.[14]

EPA's Sector Strategies Program also collaborates with the Agency's business partners to improve their environmental performance. Under this program, EPA works with 12 business sectors that have a significant impact on the nation's economy and the environment to identify cost-effective methods for reducing energy use and protecting the environment. In FY 2004, the Agency published the *Sector Strategies Performance Report*,[9] which establishes baseline trends data from which to measure future program progress.

EPA and its partners used a variety of collaborative, nonregulatory approaches to reduce pollution, conserve water and energy, and minimize business costs. The Agency's Pollution Prevention (P2) program employs a threefold approach: (1) "greening" the nation's supply and demand chains to make them more environmentally sound; (2) integrating P2 into such regulatory processes as permitting; and (3) delivering P2 services, such as technical assistance and information, to businesses, communities, and the public. EPA's P2 programs made significant progress in FY 2004:

- The Agency's *Green Chemistry Challenge Program*[12] award winners eliminated the use of 134 million pounds of hazardous chemicals.
- One aerospace company realized an annual savings of $425,000 as a result of a *Green Supplier Network*[13] review.
- The *Design for the Environment* partnership with the industrial laundry industry eliminated the use of 63 million pounds of hazardous chemicals, conserved 23 million gallons of water, and realized $488,000 in business cost savings.[15]

As EPA more frequently turns to pollution prevention to address high-risk human health and environmental problems, the need for innovative design and production techniques has increased. Research that EPA conducts to support Goal 5 informs federal, state, and local government officials; industry; academia; citizen groups; and other stakeholders about pollution prevention and new technology opportunities and alternatives. On December 31, 2003, EPA launched the Environmental Technology Opportunities Portal Internet site to assist customers seeking funding opportunities, information, and links to programs that support environmental technology development and commercialization.[16] EPA is currently reorienting its pollution prevention program research agenda to introduce sustainability concepts and approaches. This research will enable Agency, state, community and other decision makers to include risk reduction and pollution prevention as quantifiable, measurable, and scientifically defensible components of a holistic approach to risk management.

EPA works with federally recognized American Indian and Alaska Native tribes to assess environmental conditions, build tribal capacity, and implement programs to protect health and the environment in Indian Country. In FY 2004, the number of tribes developing their own environmental programs increased, and EPA increased its presence in Indian Country by directly implementing environmental programs and developing EPA/tribal environmental agreements.

In the months ahead, EPA will continue to pursue reductions in priority chemical waste, evaluate trends, and rely on collaborative programs to promote environmental stewardship and improve environmental performance. EPA will work with regulated entities to better define their needs for compliance assistance, environmental management, and innovative technologies. The Agency will build upon progress in greening all levels of government and the marketplace, leverage the power of government purchasing to promote environmental stewardship and sustainable practices, and expand and improve the delivery of P2 services to small and mid-sized companies. EPA's compliance program will use performance-based national strategies and priorities and improved performance data to better direct its assistance, incentive, and enforcement efforts to improve environmental performance and increase environmental stewardship by the regulated community.

The National Partnership for Environmental Priorities

Through the *National Partnership for Environmental Priorities* (NPEP), General Electric facilities in Ohio, Pennsylvania, Virginia, and Puerto Rico have committed to reducing their use of lead by 165,000 pounds over the next 3 years. Overall, 36 industrial and federal partners committed to using source reduction and recycling to eliminate 1.9 million pounds of hazardous waste. More information on NPEP is available at http://www.epa.gov/epaoswer/hazwaste/minimize/partnership.htm.

Goal 5: Compliance and Environmental Stewardship

Annual Performance Goals Met:	9
Annual Performance Goals Not Met:	0
Data Available After 11/5/04:	1

FY2004 Obligations (in thousands):		FY2004 Costs (in thousands):	
EPA Total:	$10,155,381	EPA Total:	$8,837,375
Goal 5:	$733,060	Goal 5:	$717,059
Goal 5 Share of Total:	7.2%	Goal 5 Share of Total:	8.1%

Strategic Objective: By 2008, maximize compliance to protect human health and the environment through compliance assistance, compliance incentives, and enforcement by achieving a 5% increase in the pounds of pollution reduced, treated, or eliminated,[17] and achieving a 5% increase in the number of regulated entities making improvements in environmental management practices.[18] (Baseline to be determined for 2005.) FY 2004 Cost (in thousands): $434,585 (60.6% of FY 2004 Goal 5 Total Costs)

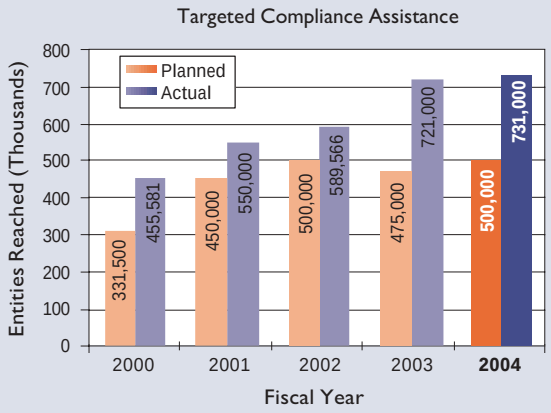
Progress Toward Strategic Objective: EPA continues to protect human health and the environment through compliance assistance, compliance incentives, monitoring, and civil and criminal enforcement. In FY 2004, 1 billion pounds of pollution are estimated to be reduced, treated, or eliminated as a result of facilities returning to compliance through enforcement settlements reached during the year. Through FYs 2001–2004, EPA reduced, treated, or eliminated 2.5 billion pounds of pollution. In addition, 83% of enforcement actions in FY 2004 resulted in environmental improvements or changes in facility environmental management or information practices resulting in a 75.5% average from FYs 2001–2004. During FY 2004 there was no direct measure for increased improvements in environmental practices. Measurement for this new Strategic Objective will begin with new Annual Performance Measures in FY 2005. However since FY 2001, EPA has measured the percent of concluded enforcement actions that require an action that results in environmental benefits and/or changes in facility management or information practices. These changes address environmental management practices from enforcement actions. Improvements in environmental practices also occur through compliance assistance and compliance incentives and these improvements will be addressed by additional measures beginning in FY 2005.

APG 5.1 Compliance Assistance		Planned	Actual
FY 2004	Increase the regulated community's compliance with environmental requirements through their expanded use of compliance assistance. The Agency will continue to support small business compliance assistance centers and develop compliance assistance tools such as sector notebooks and compliance guides. Goal Met.		
	Performance Measure: Facilities, states, technical assistance providers or other entities reachedthrough targeted compliance assistance.	500,000	731,000
FY 2003	Same goal, different target. Goal Met.	475,000	721,000

APG 5.1 Compliance Assistance *(continued)*

FY 2004 Result: EPA continues to increase the regulated community's understanding of environmental requirements and improve facility environmental management practices by providing direct and practical assistance through the Compliance Clearinghouse,[19] Compliance Assistance Centers[20] for 13 industry sectors, and direct assistance at the facility level or through state and local workshops. EPA collaborates with states and tribes to provide assistance, and to get their comments on proposed new requirements and development of new pollution prevention techniques. By helping businesses, local governments, and federal facilities understand federal environmental requirements, EPA promotes best management practices that reduce pollution while saving money.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43-44.

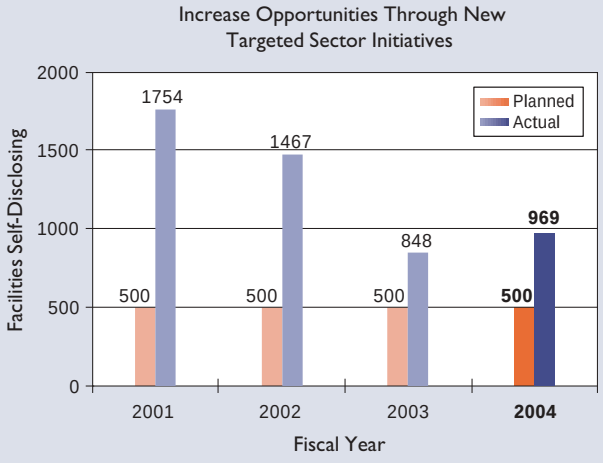


APG 5.2 Compliance Incentives

		Planned	Actual
FY 2004	Increase opportunities through new targeted sector initiatives for industries to voluntarily self-disclose and correct violations on a corporate-wide basis. Goal Met.		
	Performance Measure:		
	Facilities voluntarily self-disclose and correct violations with reduced or no penalty as a result of EPA self-disclosure policies.	500	969

FY 2004 Result: EPA offers an incentive program[21] of reduced or eliminated penalties for facilities that conduct voluntary self- audits, and report and correct violations. These incentives are often used in targeted initiatives directed at specific industrial sectors and are occasionally developed in collaboration with the industry or industrial associations. Since 2001, the incentives programs have helped return thousands of facilities to compliance, furthering environmental stewardship through the provision of information, incentives and innovative approaches to reduce or eliminate pollution.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 44.



APG 5.3 Inspections/Investigations

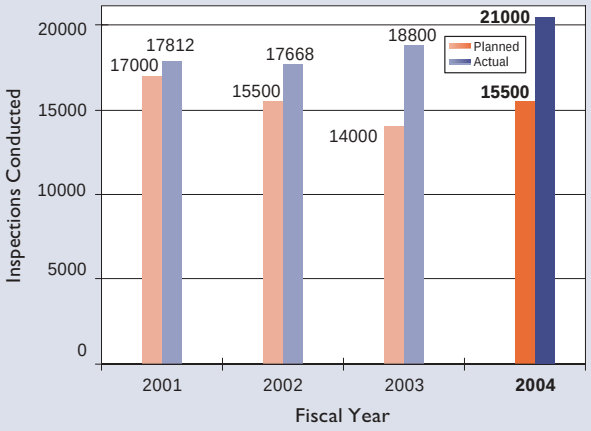
		Planned	Actual
FY 2004	EPA will conduct inspections, criminal investigations, and civil investigation targeted to areas that pose risks to human health or the environment, display patterns of non-compliance, or include disproportionately exposed populations. Goal Met.		

APG 5.3 Inspections/Investigations *(continued)*		Planned	Actual
FY 2004	*Performance Measures:*		
	—Number of EPA inspections conducted.	15,500	21,000
	—Number of criminal investigations.	400	425
	—Number of civil investigations.	180	455

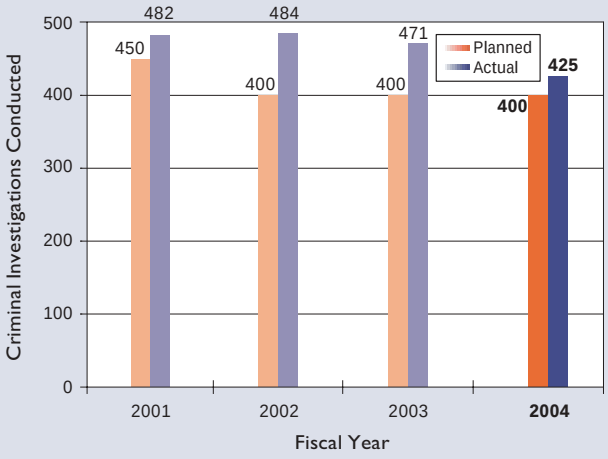
FY 2004 Result: EPA exceeded its FY 2004 targets for inspections, evaluations and investigations, maintaining an effective deterrent to violations of federal environmental laws. Investigatory activities, both civil[22] and criminal,[23] help ensure a level playing field by removing any economic or competitive advantage which may be gained through noncompliance. EPA identifies, apprehends, and assists prosecutors in successfully convicting those responsible for the most significant and egregious criminal violations of environmental law. EPA eliminates or mitigates substantial risks to human health and the environment.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 44-45.

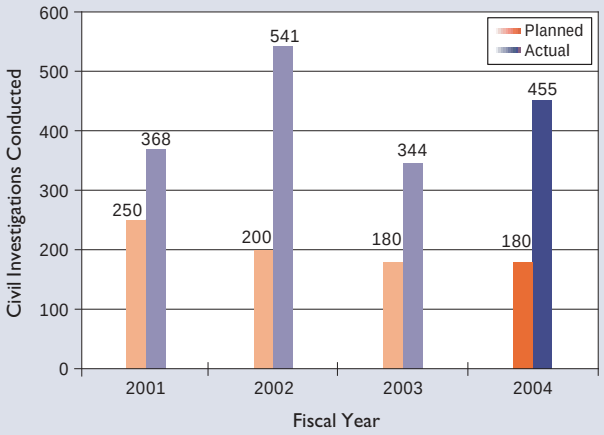
EPA Inspections Help Deter Violations of Federal Environmental Laws



EPA Exceeds FY 2004 Target for Criminal Investigations



Civil Investigations Help Ensure a Level Playing Field by Deterring Non-Compliance



APG 5.4 Increased Compliance		Planned	Actual
FY 2004	EPA will direct enforcement actions to maximize compliance and address environmental and human health problems. Goal Met.		
	Performance Measures:		
	—Percent of concluded enforcement actions that require an action that results in environmental benefits and/or changes in facility management or information practices.	75%	83%
	—Millions of pounds of pollutants required to be reduced through enforcement actions settled this fiscal year.	350 M	1B
	—Develop and use valid compliance rates or other indicators of compliance for selected populations.	5	5

APG 5.4 Increased Compliance *(continued)*		Planned	Actual
FY 2003	Same Goal, different measures. Goal Not Met.		
	Performance Measures:		
	—Percent of concluded enforcement actions require physical action that result in pollutant reductions and/or changes in facility management or information practices.	75%	63%
	—Millions of pounds of pollutants required to be reduced through enforcement actions settled this fiscal year.	300 M	600 M
	—Develop and use valid compliance rates or other indicators of compliance for selected populations.	5 populations	5 populations
FY 2002	Same Goal, different measures. Goal Not Met.		
	Performance Measures:		
	—Percent of concluded enforcement actions require physical action that result in pollutant reductions and/or changes in facility management or information practices.	75%	77%
	—Millions of pounds of pollutants required to be reduced through enforcement actions settled this fiscal year.	300 M	261 M
	—Develop and use valid compliance rates or other indicators of compliance for selected populations.	5 populations	5 populations
	—Reduce by 2 percentage points overall the level of significant noncompliance recidivism among CAA, CWA, and RCRA programs from FY 2001 levels.	2%	1.6%
	—Increase by 2% over FY 2001 levels the proportion of significant noncomplier facilities under CAA, CWA, and RCRA which returned to compliance in less than 2 years.	2%	-3.8%
	—Produce report on the number of civil and criminal enforcement actions initiated and concluded.	1	1
FY 2001	Same goal, different targets. Goal Met.		
	Performance Measures:		
	—Percent of concluded enforcement actions require pollutant reductions and/or changes in facility management or information practices.	75%	79%
	—Estimated pounds of pollutants reduced.	350 M	660 M
	—Increase or maintain existing compliance rates or other indicators of compliance for populations with established baselines, or develop additional rates for newly selected populations.	5 populations	6 populations
	—Reduce by 2 percentage points overall the level of significant noncompliance recidivism among the CAA, CWA, and RCRA programs from FY 2000 levels.	2%	2.4%
	—Increase by 2% over FY 2000 levels the proportion of significant non-complier facilities under CAA, CWA, and RCRA which returned to compliance in less than 2 years.	2%	1.33%
	—Produce a report on the number of civil and criminal enforcement actions initiated and concluded.	1	1

APG 5.4 Increased Compliance *(continued)*	Planned	Actual

FY 2004 Result: EPA focused its enforcement actions in areas with the greatest potential to protect human health and the environment by identifying significant environmental, public health, and compliance problems; using data to make strategic decisions on resource use; using the most appropriate tool to achieve the outcome, and assessing and communicating effectiveness of program actions.[24] The enforcement actions taken required defendants to reduce, treat, or eliminate illegal emissions and discharges, establish improved environmental management practices[25] that will help to detect and prevent potential future non-compliance, and change their information/data practices to ensure the facilities can correctly identify and track wastes, waste processes, and their own compliance with environmental requirements. Eighty-three percent of enforcement actions concluded in FY 2004 will result in increased environmental protection or improved long-term facility environmental management practices; 38% will result in increased environmental benefits; and 71% will result in changes to facility management or information practices.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 45-46.

APG 5.5 Quality Assurance		Planned	Actual
FY 2004	**Identify noncompliance and focus enforcement and compliance assurance on human health and environmental problems, by maintaining and improving quality and accuracy of data.** Goal Met.		
	Performance Measure:		
	Complete the data migration plan and begin software development as part of the system implementation life cycle stage (i.e., data migration and testing) of Phase II of Integrated Compliance Information System (ICIS) (modernization of the Permit Compliance System) by September 2004.	1 plan	1 plan
FY 2003	Same Goal, different measures. Goal Met.		
	Performance Measures:		
	—Operate 14 information systems housing national enforcement and compliance assurance data with a minimum of 95% operational efficiency.	95%	95%
	—Complete the detailed design and software development system lifecycle stage of Phase II of ICIS (modernization of the Permit Compliance System) by September 2003.	1	1
FY 2002	Maintain and improve quality and accuracy of EPA's enforcement and compliance data to identify noncompliance and focus on human health and environmental problems. Goal Met.		
	Performance Measures:		
	—Operate 14 information systems housing national enforcement and compliance assurance data with a minimum of 95% operational efficiency.	95%	95%
	—Have Phase I of the ICIS fully operational in March 2002.	Phase I	Phase I
FY 2001	Same goal, different measures. Goal Met.		
	Performance Measures:		
	—Continue operation and maintenance/user support of 14 information systems housing national enforcement and compliance assurance data with a minimum of 95% operational efficiency.	95%	95%
	—Complete Phase I of ICIS development (programming) and begin design of Phase II.	Phase I	Phase I

APG 5.5 Quality Assurance *(continued)*		Planned	Actual
FY 2001 *(continued)*	—Complete Quality Management Plan project for additional data systems.	3	0
	—Complete detailed design (development of screens, prototypes) including a pilot NPDES permitting desk model for Permit Compliance System modernization.	1	1
	—Conduct four data analyses of environmental problems in Indian Country using the American Indian Lands Environmental Support Project and the baseline assessment survey.	4	12

FY 2004 Result: FY 2004 modernization of the ICIS included Phase II for the Permit Compliance System which tracks the permitting, enforcement, and compliance programs within the Clean Water Act to ensure that surface waters can be used for drinking, recreation, and other activities. EPA is working with the states to improve the quality and comprehensiveness of the data and to reduce transaction costs through strategies such as exchanging data electronically, adhering to all Agency data standards, and integrating the new system with other EPA systems. When complete, ICIS will enable EPA to better review environmental and compliance data to help target compliance and enforcement efforts on those permitees that pose the greatest potential risks to human health and the environment.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 46.

APG 5.6 Capacity Building		Planned	Actual
FY 2004	**Improve capacity of states, localities and tribes to conduct enforcement and compliance assurance programs. EPA will provide training as well as assistance with state and tribal inspections to build capacity. Goal Met.**		
	Performance Measure:		
	Conduct EPA-assisted inspections to help build state program capacity.	**400**	**600**
FY 2003	Same Goal, different target. Goal Met.	250	1,027
FY 2002	Same Goal, different measures. Goal Met.		
	Performance Measures:		
	—Conduct EPA-assisted inspections to help build state program capacity.	400	1,081
	—Number of EPA training classes/seminars delivered to states, localities and tribes to build capacity.	200	319
	—Provide tribal governments with 50 computer-based training (CBT) modules.	50	116
	—Total number of state and local students trained.	4,900	6,631
	—Train tribal personnel.	95	808
FY 2001	Same Goal, different targets. Goal Met.		
	Performance Measures:		
	—Conduct EPA-assisted inspections to build capacity.	150	895
	—Number of EPA training classes/seminars delivered to states, localities and tribes to build capacity.	220	128
	—The National Enforcement Training Institute will provide tribal governments with 50 CBT modules.	50	235
	—Total number of state and local students trained.	4,900	4,727
	—The National Enforcement Training Institute will train tribal personnel.	105	428

APG 5.6 Capacity Building *(continued)*	Planned	Actual

FY 2004 Result: EPA has authorized most states and some tribes to carry out Federal environmental regulatory programs. Although state regulatory partners have the responsibility for conducting the majority of inspections, EPA maintains a parallel regulatory authority and ensures that authorized states and tribes have the capacity to properly conduct inspections, especially for modified or new regulations. EPA conducts joint inspections with the states and tribes to build capacity to conduct thorough and complete inspections under both existing and new regulations.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 46-47.

Strategic Objective: By 2008, improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices that include the design of products and manufacturing processes that generate less pollution, the reduction of regulatory barriers, and the adoption or results-based, innovative, and multimedia approaches. FY 2004 Cost (in thousands): $131,245 (18.3% of FY 2004 Goal 5 Total Costs)

Progress Toward Strategic Objective: Through 2004 EPA and its state and tribal partners have achieved considerable progress towards this objective. Combined 2004 results of EPA's pollution prevention programs exceeded elimination of 600 million pounds of hazardous chemical use, 495 million gallons of water saved, and $936,000 in company cost savings. An additional benefit of the Agency's pollution prevention work was the elimination of 77 metric tons of carbon dioxide. Through expanded outreach efforts, EPA has made considerable progress in encouraging development of new safer and environmentally-friendly chemicals, products and processes through its Design for the Environment, Green Chemistry Challenge, and Green Supplier Network Programs that will deliver continuing environmental and human health benefits in coming years.

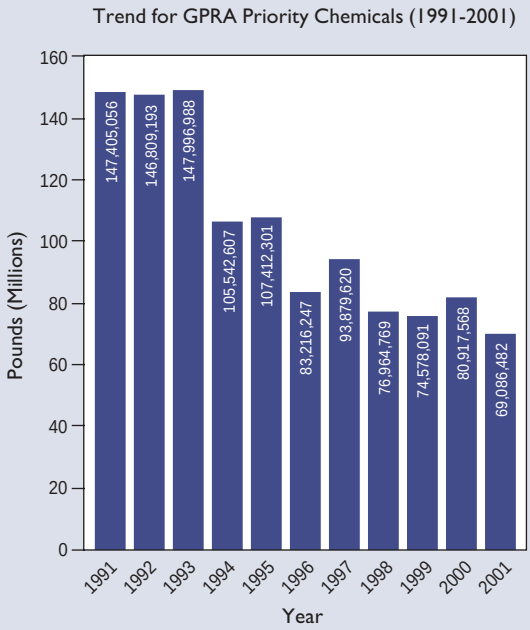
Current data show that EPA has accomplished its 2008 goal of a voluntary 50% reduction in priority chemicals in hazardous waste streams using the FY 1991 baseline.[26] In response to this success, EPA has developed a new data set, performance measure and baseline to track reductions in priority chemicals that were introduced in the FY 2006 annual plan and budget cycle. The new performance measure will capture information from an expanded list of chemicals (23 as opposed to 17) and will address both hazardous and non-hazardous waste streams. Beginning in November 2005, EPA will report on FY 2003 results and provide trend data using the new baseline.

APG 5.7 Reducing Persistent Bioaccumulative Toxics (PBTs) in Hazardous Waste Streams		Planned	Actual
FY 2004	**Reduce waste minimization priority list chemicals in hazardous waste streams an additional 3% {from 1991 levels} (for a cumulative total of 46% or 81 million pounds) by expanding the use of state and industry partnerships and regional pilots. Goal Met.**	**3%**	**Data avail 2006**
FY 2003	Reduce waste minimization priority list chemicals in hazardous waste streams by 43% to 86 million pounds by expanding the use of state and industry partnerships and regional pilots. Goal Met.	3%	Data avail 2005

APG 5.7 Reducing Persistent Bioaccumulative Toxics (PBTs) in Hazardous Waste Streams *(continued)*	Planned	Actual

FY 2003 and 2004 Results: FY 2001 data, the most recent data available, show a voluntary reduction of 53% from the adjusted FY 1991 baseline of approximately 147 million pounds. Thus the target established for FY 2004 has already been met. In response to these better-than-expected results, EPA created a new performance goal and measure which monitors an expanded list of chemicals in both hazardous and non-hazardous waste streams. EPA's work to reduce or eliminate waste in manufacturing promotes economic development that does not compromise future needs.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 47.



APG 5.8 Improve Environmental Performance Through Pollution Prevention and Innovation		Planned	Actual
FY 2004	Prevent, reduce and recycle hazardous industrial/commercial chemicals and municipal solid wastes.		
	Performance Measures:		
	—Reduction of TRI non-recycled waste (normalized).	200 M Lbs	Data avail FY 2006
	—Alternative feed stocks, processes, or safer products identified through Green Chemistry Challenge Award (cumulative).	210 prod/proc	429
	—Quantity of hazardous chemicals/solvents eliminated through the Green Chemistry Challenge Awards Program	150 M Lbs	460 M Lbs
	—For eco-friendly detergents, track the number of laundry detergent formulations developed.	36	38
FY 2003	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2003 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2002.	-200 M	Data avail FY 2005
FY 2002	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2002 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2001. Goal Not Met.	-200 M	+366 M
FY 2001	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2001 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 6.3%, from 2000. Goal Met.	-200 M	-464 M

APG 5.8 Improve Environmental Performance Through Pollution Prevention and Innovation *(continued)*

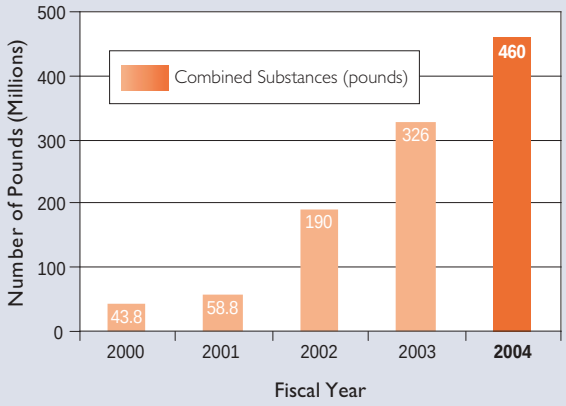
Planned Actual

FY 2004 Result: EPA's efforts to prevent pollution through outreach, recognition and technical support resulted in the elimination of 387 million pounds of hazardous chemicals/solvents and increased demand for "green" products and purchases. The Agency's Green Chemistry Challenge program provides Presidential recognition to industries and academia for the development of cleaner and safer chemicals, products and processes. The Agency's recently expanded outreach to promote the Challenge competition helped EPA to greatly exceed other pollution prevention targets. In FY 2004, EPA's efforts resulted in the saving of 440 million gallons of water. An additional benefit of the Agency's pollution prevention work was the elimination of 77 metric tons of carbon dioxide. EPA also exceeded its target for developing 8 additional environmentally-friendly laundry detergent formulations bringing the cumulative total to 38. Introduction of these new products into commerce results in reduced use of water, energy and hazardous chemicals.

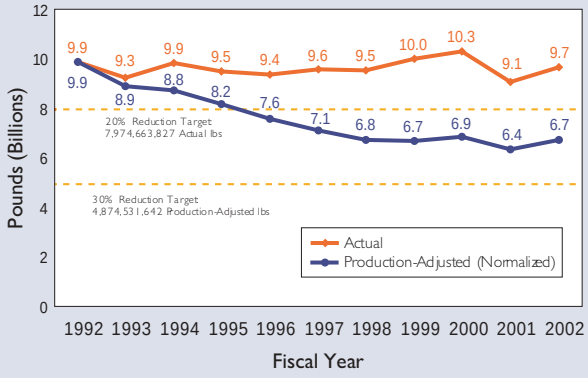
A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 47-48.

FY 2002 Result Available in FY 2004: EPA did not meet its goal. TRI non-recycled waste increased by approximately 601 million pounds (6.6%) from 2001-2002, compared to the target of a 2% reduction. When these numbers are adjusted to account for changes in production, the result is only a 366 million pound increase (5.7%). EPA's progress toward reduction of TRI pollutants can vary from year to year, due to reporting system rules, industry estimation methods, and collection methods. The Agency is aware of the performance issue and has taken the necessary steps to enhance data quality and perform the analysis to address potential outliers within the TRI data. However, even with the 2002 increase in TRI non-recycled wastes, the long-term trend (1992-2002) shows continued reduction of 3 billion pounds of TRI wastes that would otherwise have been generated.

Green Chemistry Challenge Program, 2000–2004
Number of Pounds of Hazardous Chemicals/Solvents Eliminated

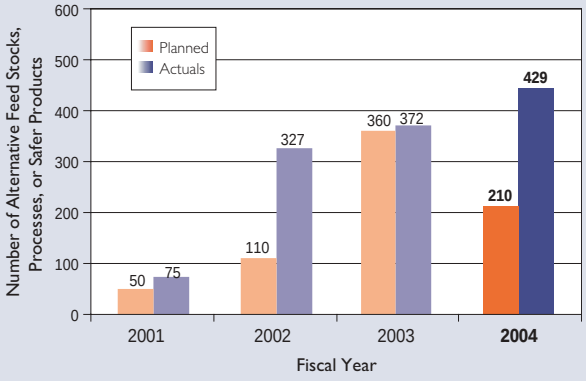


Toxics Release Inventory (TRI) Non-Recycled Waste Trends



Data Source: EPA's Toxics Release Inventory, Office of Environmental Information, March 7, 2003 TRI Data

Green Chemistry Challenge Award, 2001–2004



Strategic Objective: Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues. FY 2004 Cost (in thousands): $63,856 (8.9% of FY 2004 Goal 5 Total Costs)

Progress Toward Strategic Objective: In FY 2004, EPA increased assistance to tribes for assessing environmental conditions, building capacity to administer multi-media programs, and implementing environmental programs in Indian country. EPA is on track to meet it FY 2008 objective. EPA's strategy for increasing tribal capacity involves working with tribes to develop environmental expertise for tribes and providing information tribes need to meet EPA and tribal environmental priorities. The Agency is also enhancing its ability to analyze conditions on Indian lands and evaluate the effects of EPA and tribal actions on environmental conditions. In FY 2004, EPA increased the number of tribes who are developing environmental program capacity and the Agency increased its environmental presence in Indian County through its direct implementation and the EPA/tribal environmental agreements.

APG 5.9 Tribal Environmental Baseline/Environmental Priority		Planned	Actual
FY 2004	**Percent of Tribes will have an environmental presence (e.g., one or more persons to assist in building Tribal capacity to develop and implement environmental programs.** Goal Met.		
	Performance Measures:		
	—**Tribes with delegated and non-delegated programs (cumulative).**	**5%**	**28%**
	—**Tribes with EPA-reviewed monitoring and assessment occurring (cumulative).**	**20%**	**44%**
	—**Tribes with EPA-approved multimedia workplans (cumulative).**	**18%**	**26%**
FY 2003	In 2003 the American Indian Environmental Office will evaluate non-Federal sources of environmental data pertaining to conditions in Indian Country to enrich the Tribal Baseline Assessment Project. Goal Met.	20	20
FY 2002	Baseline environmental information will be collected for 38% of tribes (covering 50% of Indian Country). Goal Met.		
	Performance Measure:		
	Environmental assessments for tribes (cumulative).	217 tribes	331 tribes
FY 2001	Same goal, different targets. Goal Met.	193	207

FY 2004 Result: Under Federal environmental statutes, EPA has responsibility for assuring human health and environmental protection in Indian country. EPA has worked toward this goal by providing 86% of tribes with access to funds to hire environmental expertise. As of FY 2004, 490 of the 572 eligible federally recognized tribes and intertribal consortia have at least one person working in their communities to help build and administer environmental programs. In turn 28% of tribes have developed the capacity to implement tribal environmental programs through delegated and non-delegated program authority. EPA continues to work with tribes to develop multi-media workplans that prioritize their environmental protection programs.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 48-49.

Strategic Objective: Through 2008, strengthen the scientific evidence and research supporting environmental policies and decisions on compliance, pollution prevention, and environmental stewardship. FY 2004 Cost (in thousands): $87,372 (12.2% of FY 2004 Goal 5 Total Costs)

Progress Toward Strategic Objective: In FY 2004 EPA continued its progress in conducting leading-edge research in support of environmental policies and decisions on compliance, pollution prevention, and environmental stewardship. In addition to verifying the performance of 35 innovative environmental technologies to assist states, technology purchasers, and the public in making technology selection decisions, EPA also provided tools and assessments for reducing environmental impacts in both the private and public sectors. Specifically, EPA's Office of Research and Development issued a web-based catalog of current state-of-the-art environmental impact models, released a multi-media training CD-rom for federal, regional, state, and local governments, and for assistance providers for use in developing organizational pollution prevention strategies, and held a workshop on effective electronics product stewardship, reuse, recycling, and disposal. In total, these efforts will assist industry, regulators, and the public in making informed decisions that prevent and/or reduce pollution.

APG 5.10 New Technologies		Planned	Actual
FY 2004	**Verify 35 air, water, greenhouse gas, and monitoring technologies (through the Environmental Technology Verification (ETV) program) so that states, technology purchasers, and the public will have highly credible data and performance analyses on which to make technology selection decisions.** Goal Met.	35	35
FY 2003	Develop 10 testing protocols and complete 40 technology verifications for a cumulative ETV program total of 230 to aid industry, states, and consumers in choosing effective technologies to protect the public and environment from high risk pollutants. Goal Met.	10 40	10 40
FY 2002	Formalize generic testing protocols for technology performance verification, and provide additional performance verifications of pollution prevention, control and monitoring technologies in all environmental media. Goal Met. *Performance Measure:* Complete 20 stakeholder approved and peer-reviewed test protocols in all environmental technology categories under ETV, and provide them to testing organizations world-wide.	20	20
FY 2001	Develop, evaluate, and deliver technologies and approaches that eliminate, minimize, or control high risk pollutants from multiple sectors. Emphasis will be placed on preventive approaches for industries and communities having difficulty meeting control/emission/effluent standards. Goal Not Met. *Performance Measure:* Deliver a Report to Congress on the status and effectiveness of the ETV Program during its first 5 years.	1	0

FY 2004 Result: Actual environmental risk reduction is directly related to performance and effectiveness of environmental technologies purchased and used. Private sector technology developers produce almost all the new technologies purchased in the U.S. and around the world. Purchasers and permitters of environmental technologies need an independent, objective, high quality source of performance information in order to make more informed decisions; and vendors with innovative, improved, faster and cheaper environmental technologies need a reliable source of independent evaluation to be able to penetrate the environmental technology market. In FY 2004 the ETV program verified the performance of innovative environmental technology in the areas of drinking water treatment, water quality protection, air and water monitoring, air pollution control, pollution prevention, and greenhouse gas reduction. For example, EPA verified the performance of a technology to remove solids and nutrients from swine manure at a concentrated animal feeding operation (CAFO). If these technologies are employed at CAFO facilities, solids could be removed from wastewater entering a lagoon storage pond and, in turn, reduce solids and nutrient loading to receiving streams and/or groundwater[27]. EPA also verified diesel retrofit technologies which improve the environmental performance of diesel engines by reducing emission of particulate matter, nitrogen oxides, hydrocarbons, and carbon monoxide[28]. These highly credible data and performance analyses will assist states, technology purchasers, and the public in making technology selection decisions.[29]

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 49.

ASSESSMENT OF IMPACTS OF FY 2004 PERFORMANCE ON FY 2005 ANNUAL PLAN:
THERE ARE NO CHANGES TO FY 2005 APGS BASED ON RESULTS OF FY 2004 PERFORMANCE.

Notes

1 More information on compliance assistance programs is available at http://www.epa.gov/compliance/assistance/index.html

2 More information on compliance incentives programs and the self-audit policy is available at http://www.epa.gov/compliance/incentives/index.html

3 More information on compliance monitoring and civil enforcement is available at http://www.epa.gov/compliance

4 More information on supplemental environmental projects is available at http://www.epa.gov/compliance/civil/programs/seps/index.html

5 For criminal enforcement actions, pounds of pollutants are calculated through the remediation of damages and/or compelling proper disposal, or from otherwise stopping pollutants from illegally entering the environment. More information on the criminal enforcement program is available at http://www.epa.gov/compliance/criminal/index.html. Appendix B contains information on data quality of the CRIMDOC data system.

6 U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, Case Conclusion Data Sheets, available at http://www.epa.gov/compliance/resources/publications/planning/caseconc.pdf. More information on settled cases and the environmental benefits achieved, including pounds of pollutants reduced, is available at http://www.epa.gov/compliance/resources/cases/civil

7 This information was collected through exit surveys completed by users of the National Compliance Assistance Centers. U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance. "Compliance Assistance Results." Available at http://www.assistancecenters.net/results.

8 U.S. Environmental Protection Agency. April 2004. *Performance Track Progress Report: Top Performers Solid Results*. EPA-100-R-04-004. Washington, DC. Available at http://www.epa.gov/performancetrack.

9 Available at http://www.epa.gov/sectors/performance.html

10 More information on health and environmental impacts of particulate matter is available at http://www.epa.gov/air/urbanair/pm/hlth1.html.

11 More information on enforcement cases and supplemental environmental projects is available at http://www.epa.gov/region1/enforcementandassistance/index.html.

12 U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. "Green Chemistry Challenge." Internal database. Continually updated.

13 U.S. Environmental Protection Agency. Spring 2004. Internal document; no title. Prepared by CONNSTEP for Green Supplier Network.

14 U.S. Environmental Protection Agency. *2002 Performance Track Annual Report*. Available at http://www.epa.gov/performancetrack.

15 Electronic communication from Noramtech Corporation to EPA Design for Environment staff, November 20, 2002.

16 See http://www.epa.gov/etop for more information.

17 "Pounds of pollutants reduced, treated, or eliminated" is an EPA measure of the quantity of pollutants that will no longer be released to the environment as a result of a noncomplying facility returning to its allowable limits through the successful completion of an enforcement settlement. In civil enforcement actions, facilities may further reduce pollutants by carrying out voluntary Supplemental Environmental Projects, which are actions taken to go beyond legal requirements. Online compliance information is available to the public via EPA's Enforcement and Compliance History Online (ECHO) Web Site: http://www.epa.gov/echo, EPA's Office of Enforcement and Compliance Assurance. Washington, DC.

18 "Environmental management practices" refers to a specific set of activities EPA tracks to evaluate changes brought about through assistance, incentives, and concluded enforcement actions. Implementing or improving environmental management practices– for example, by changing industrial processes; discharges; or testing, auditing, and reporting– may assist a regulated facility in remaining in compliance with environmental requirements. Further information on environmental management practices is available in EPA's Case Conclusion Data Sheet Training Booklet, available online at http://www.epa.gov/compliance/resources/publications/planning/caseconc.pdf.

19 Compliance Clearinghouse is available at http://cfpub.epa.gov/clearinghouse.

20 Compliance Assistance Centers are available at http://www.assistancecenters.net.

21 More information on compliance incentives programs available at http://www.epa.gov/compliance/incentives/index.html.

22 More information on compliance monitoring and civil enforcement available at http://www.epa.gov/compliance.

23 More information on the criminal enforcement program is available at http://www.epa.gov/compliance/criminal/index.html.

24 More information on settled cases and the environmental benefits achieved, including pounds of pollutants reduced, available at http://cfpub.epa.gov/compliance/resources/cases/civil.

25 More information on EMS available at http://www.epa.gov/compliance/incentives/ems/index.html.

26 A report on voluntary priority chemical reductions is found at http://www.epa.gov/epaoswer/hazwaste/minimize/trends.htm. For general information on the waste minimization program, go to http://www.epa.gov/epaoswer/hazwaste/minimize/index.htm.

27 Http://www.epa.gov/etv/pdfs/vrvs/09_vr_max1016.pdf

28 Http://www.epa.gov/etv/pdfs/vrvs/05_vr_lubrizol.pdf
Http://www.epa.gov/etv/pdfs/vrvs/05_vr_CDT.pdf

29 See http://www.epa.gov/etv for more information.